

# Challenging Vascular Access

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**"My Access,  
My Life"**

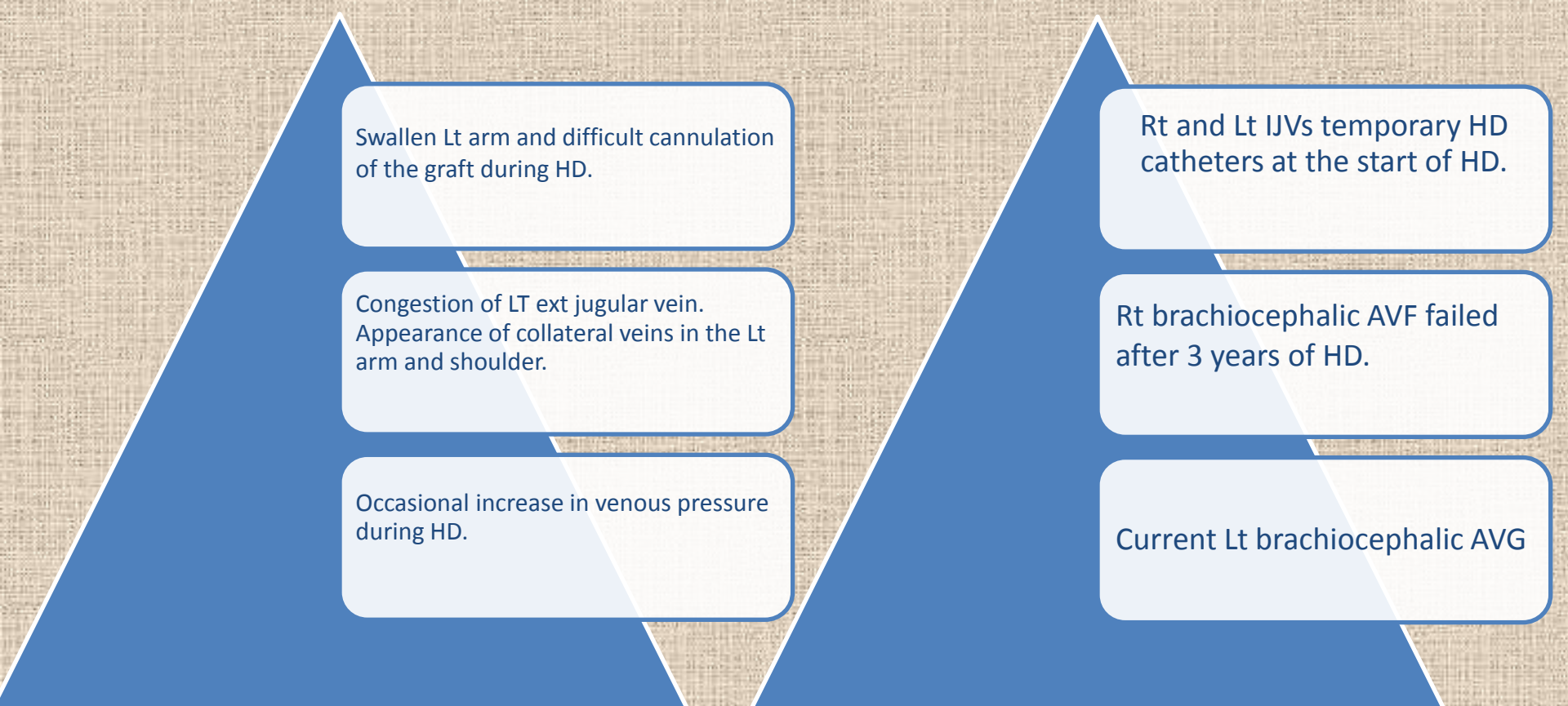


**Menoufia – Damanhour – Sheffield Trio SRC, Level - C**



## Case Presentation

22 ys old female, ESRD on RHD since 10 years through Lt brachiocephalic AVG in Damanhur Nephrology department.



Swollen Lt arm and difficult cannulation of the graft during HD.

Congestion of LT ext jugular vein. Appearance of collateral veins in the Lt arm and shoulder.

Occasional increase in venous pressure during HD.

**Complain/Examination**

Rt and Lt IJVs temporary HD catheters at the start of HD.

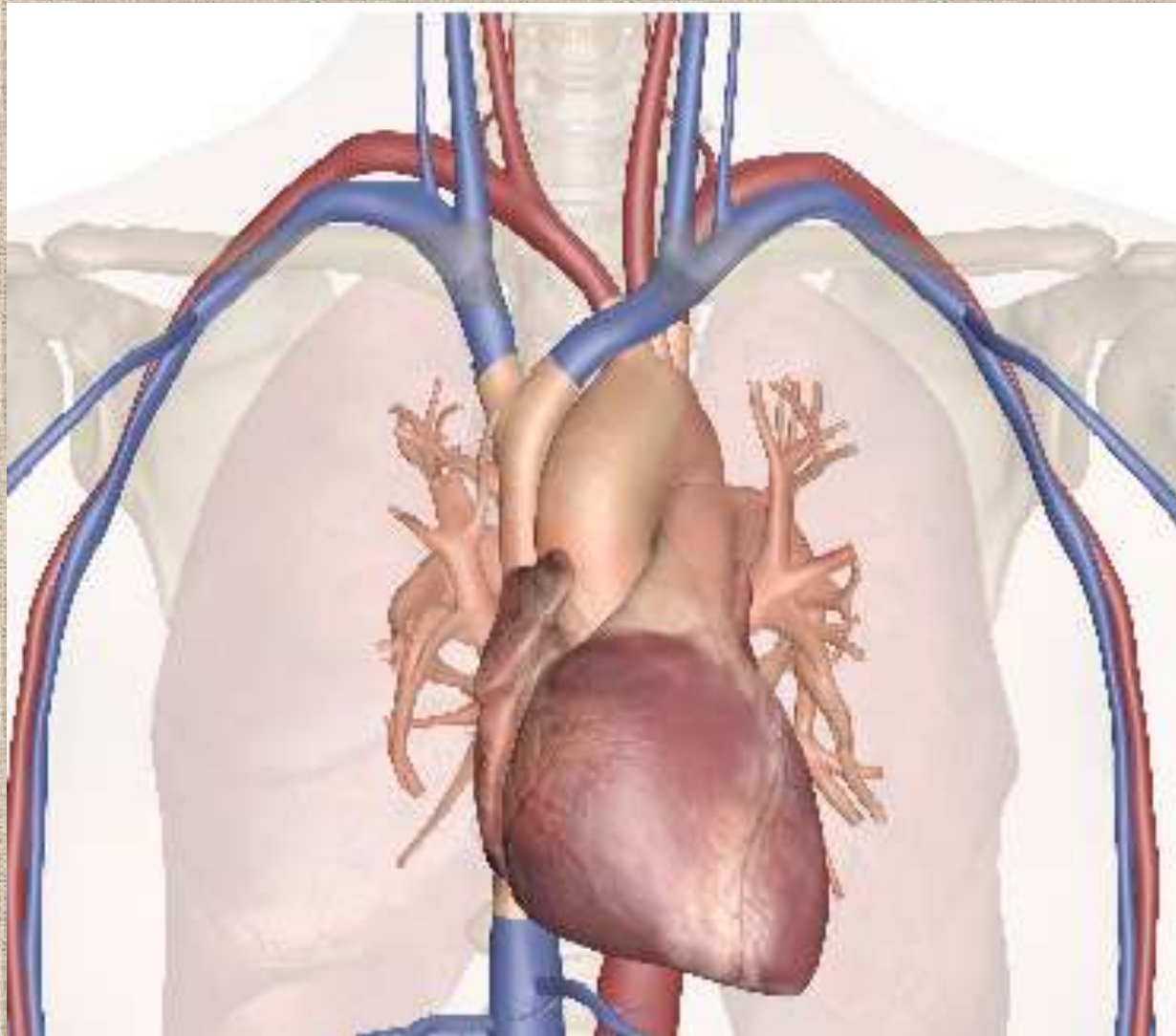
Rt brachiocephalic AVF failed after 3 years of HD.

Current Lt brachiocephalic AVG

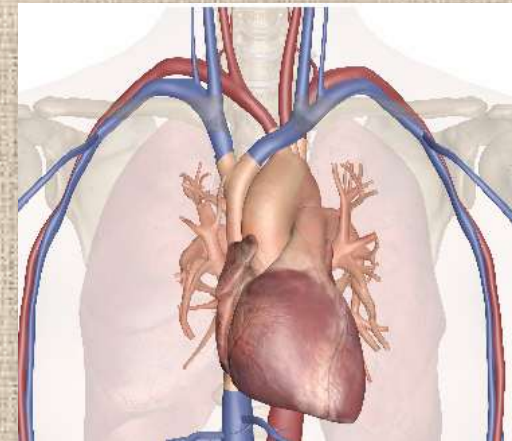
**HD access history**



## Central Venous Anatomy



## Central Venogram

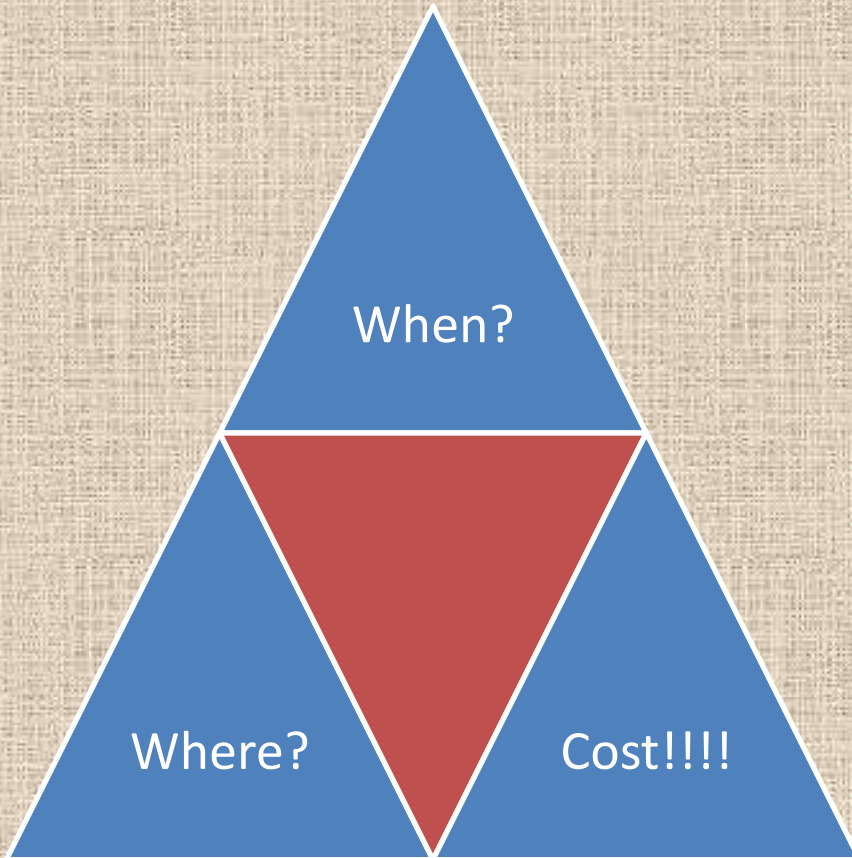


### Left Brachiocephalic AVG Antegrade Venous Puncture :

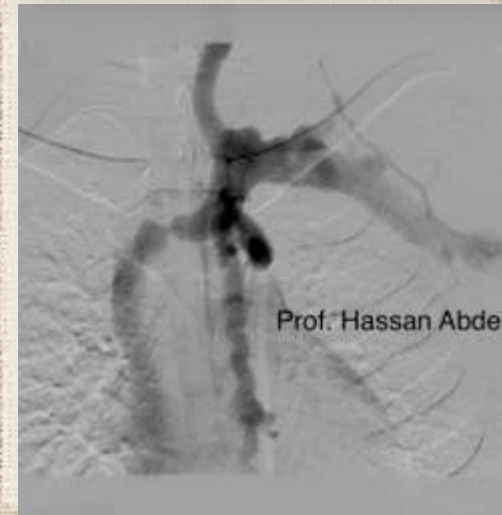
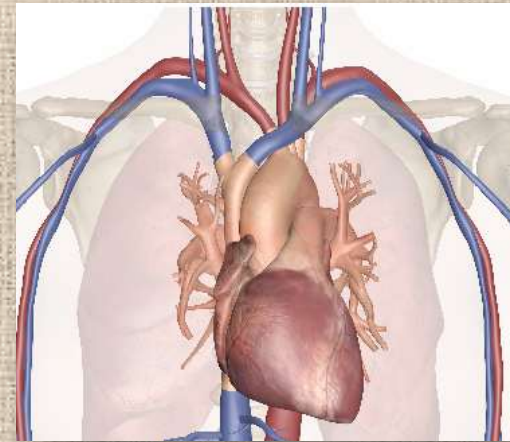
- Appearance and congestion of the Hemi-azygos vein and venous collaterals.
- Retrograde reflux of the dye in the Rt IJV.
- Tight stenosis at the confluence of the brachio-Cephalic vein.



## Vascular Access Surveillance

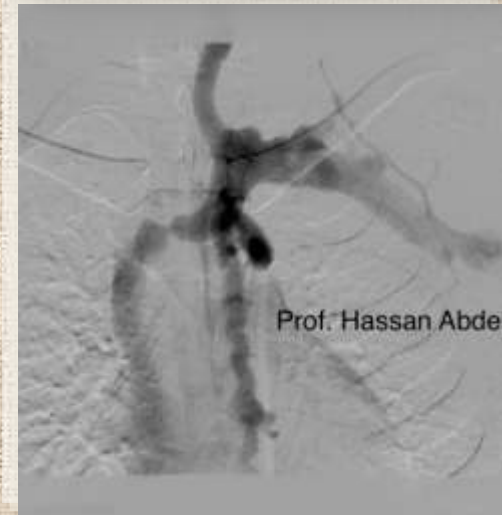
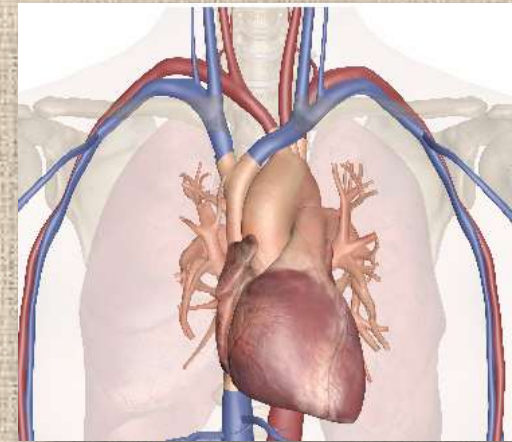


Interventional nephrology



## Central venous angioplasty

Prof. Hassan Abdelsalam

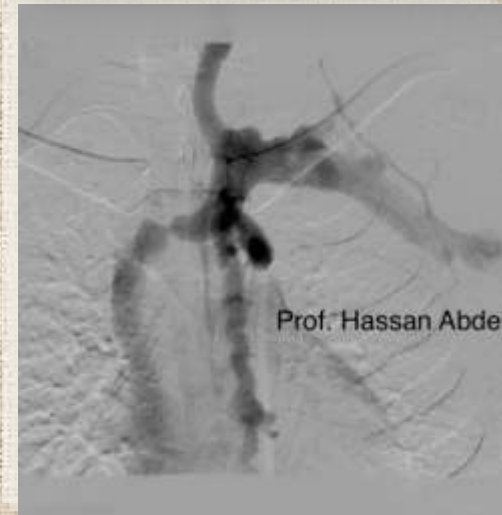
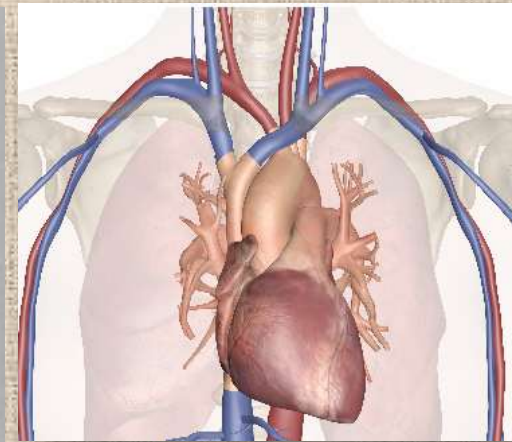


Balloon angioplasty using 14 mm high pressure balloon

Post central venous angioplasty



Prof. Hassan Abdelsalam



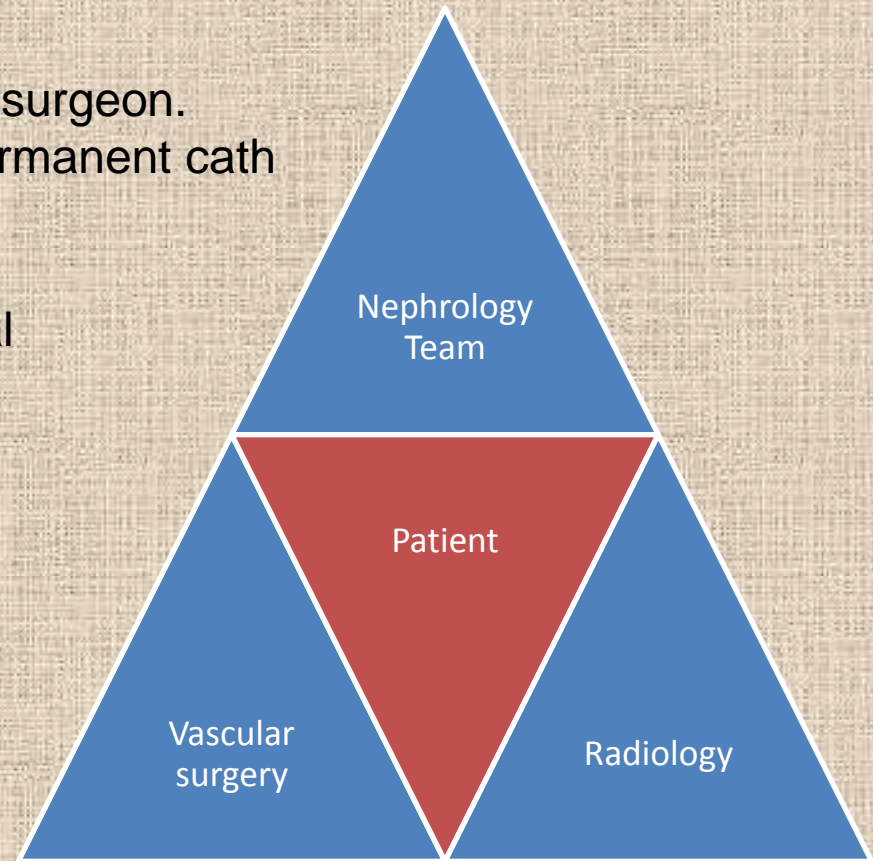
Very good result:

- Disappearance of the Hemi-azygos vein and venous collaterals.
- Disappearance of the retrograde reflux of the dye in the Rt IJV.



## Recommendations:

- Optimal HD vascular access care:
  - ✓ Pre-dialysis care.
  - ✓ Improving training of the vascular surgeon.
  - ✓ Widespread implementation of permanent cath insertion.
  - ✓ HD access surveillance.
  - ✓ Implementing role of interventional nephrology/radiology/



**MDT Approach**



## Recommendations:

- Financial support for interventional nephrology procedures:
  - ✓ Angioplasty
  - ✓ Stenting
- Supporting the initiative of the Egyptian society of nephrology and transplantation – interventional nephrology committee.



## Home messages:

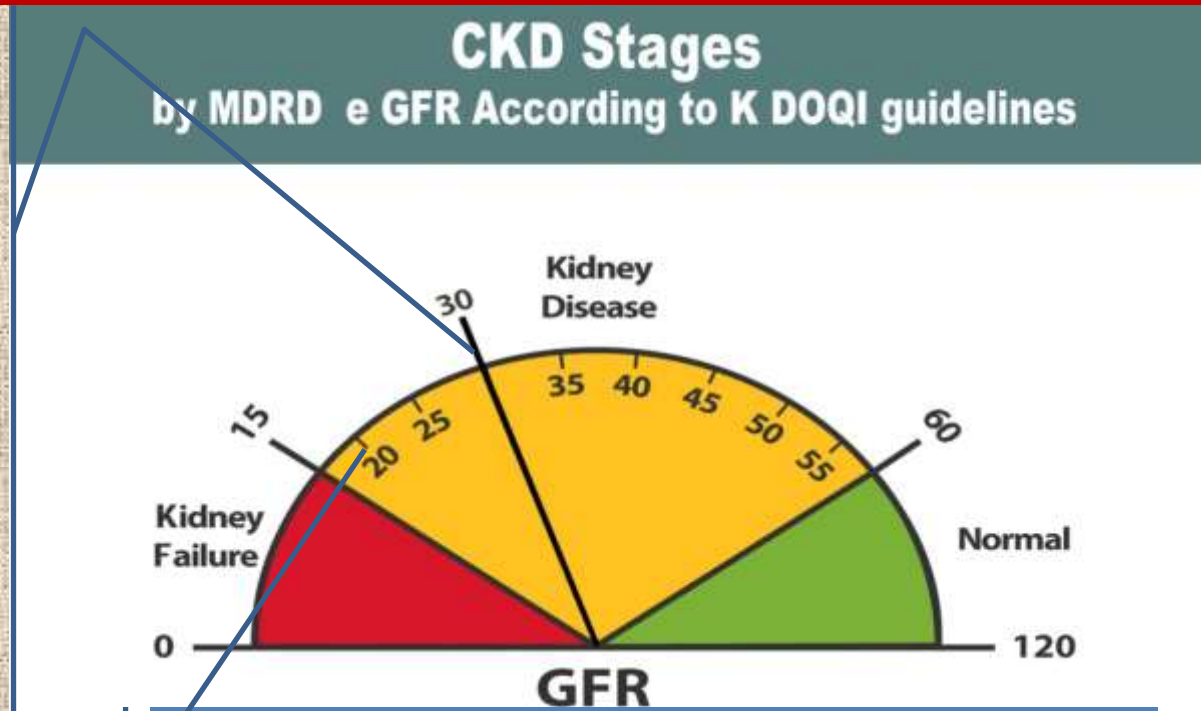
- Optimal pre-dialysis care and creation of AVF with enough time for maturation of the AVF before starting HD.
- Rt IJV and femoral veins are the optimal approaches for insertion of HD catheters in case of urgent HD.
- Avoid temporary catheter as it is fibrogenic and cause venous thrombosis.
- Permanent catheters are preferable due to durability and its more inert material.
- Regular assess of the AVF/AVG by the nephrologist and refer at the optimal time.
- Consider role of interventional radiologist before closure of the AVF in case of venous HTN either due to central stenosis or wide AVF ostium.

## 30 ml/min Educate

1- You have reduced kidney function and you may need kidney replacement therapy (KRT) to save your life.

2- Describe modalities of KRT.

3- Spare forearm and upper arm veins from injections. Dorsum of hands is the preferred site for injections and cannulation. This will save these veins for creation of AVF.



## 20 ml/min ..... Create

**This is the optimal time for creation of AVF/  
preparation for preemptive kidney  
transplantation**



Announcement

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Announcement

# 16<sup>th</sup> Annual Conference of Damanhur Nephrology Department

In collaboration with

- ESNT
- ISN – CME Committee
- Menoufia – Damanhur –  
Sheffield TRIO SRC

14-16 December 2016



# Thanks

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